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REMARKS

Upon entry of the proposed amendment, claims 1, 3-5 and 8-10 will remain pending in the present application.

The amendment to the claims finds basis in paragraphs 0020, 0027 and in original claims 2, 6 and 7. Note that in paragraph 0027, Applicants indicate that the filters, 10 and 12, "extend the length of the melt spinning beam", which of course the skilled artisan would understand further means that the same would be true of the coat hanger distribution manifolds. Likewise, the skilled artisan would understand that neither of the filters nor the coat hanger distribution manifolds could extend the entire length of the beam, but that each would terminate near each end, but within the length of the beam, i.e. that they are 'essentially' the length of the beam.

Entry of the amendment is requested as Applicants believe that it places the claims into condition for allowance and will thus advance prosecution. Alternatively, entry is requested in order to simplify issues on appeal. No new matter is added.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 1-9 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants traverse this basis for rejection and respectfully requests reconsideration and withdrawal thereof, in view of the accompanying amendment.

Applicants believe that the amendment addresses the Examiner's formal concerns expressed in the outstanding Office Action.

Rejection under 35 U.S.C. § 103(a)

Claims 1-10 stand rejected under 35 U.S.C. § 103(a) as being obvious over Hills (U.S. Patent no. 5,162,074) in view of Grotten et al. (U.S. Patent no. 6,402,870) and Buehning et al. (U.S. Patent no. 4,889,478). Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

Applicants reiterate their comments in traverse of the proposed combination of references as set forth in their previous reply.

In the outstanding Office Action the Examiner proposes that:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to join the polymers of Hills together outside the die so

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that the complex shape of the polymer filament would have a clear outline (Office Action, page 3).

Applicants traverse the Examiner's line of reasoning. One object of Hills is stated to be the extrusion of multiple loosely bonded sub-fibers that can be separated to provide *multiple low denier uniform micro-fibers* from each extruded multi-component fiber (col. 5, lines 55-60; emphasis added). For example, Hills suggests that his

etched distributor plate facilitates extrusion of micro-fiber staple, about 0.1 denier per micro-fiber, each micro-fiber having only one polymer component....With mechanical working, the master fiber, typically of 6.4 denier, can be separated into *multiple micro-fibers*, (for example 64 micro-fibers) having an average denier of 0.1 (col. 6, line 66, bridging to col. 7, line 15; emphasis added).

Since Groten et al., which discloses a plate for post-coalescence of fibers, discloses only fibers of 1.2 dTex (about 1 denier) are formed, which can be split into only two 0.6 dTex (about 0.5 denier) fibers, the skilled artisan could not have been motivated to modify Hills in the manner suggested by the Examiner, since to do so would destroy the advantages set forth by Hills, i.e. forming as many as 64 micro-fibers having average deniers of 0.1. Withdrawal of the rejection is requested on this basis alone.

Further, the Examiner suggests that either of the distributor plate 14 or the spinneret plate 15 of Hills could be substituted with a plate according to Groten et al. (Office Action, page 3). Applicants traverse the Examiner's reasoning on this point for three reasons.

First, the disposable, etched distributor plate 14 of Hills is clearly central to his invention (col. 6, lines 5-31), so to modify Hills in the manner suggested by the Examiner would destroy the functioning of the reference.

Second, if the distributor plate of Groten et al. were modified to be a thin, etched distributor plate according to Hills, then insertion of such plate into the Hills apparatus would still not result in post-coalescence of fibers, since the fibers exiting the modified distributor plate 14 would still pass into spinneret plate 15 and through orifices 40 of the Hills apparatus and would therefore be combined prior to exiting the spinneret. Further, it would not have been obvious to substitute such a thin distributor plate 14 for post-coalescence into the Hills apparatus, and then eliminate

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the spinneret plate 15, as suggested by the Examiner, since Hills indicates that even the spinneret plate 15 must be strong to avoid bowing at its center due to polymer pressure (col. 19, lines 5-10). Certainly, the skilled artisan would not have considered modifying the Hills apparatus by eliminating the spinneret plate 15, leaving only the thin distributor plate 14, which would most certainly bow at its center without the support of a strong spinneret plate.

Finally, it would not have been obvious to substitute the Groten et al. distribution plate for the spinneret plate 15 of Hills, as suggested by the Examiner, since the distributor plate 14 of Hills would act to coalesce the polymers in advance of the spinneret plate 15 (modified according to Groten et al.), and as such could not be certain to separate and then post-coalesce the polymers into discrete polymer fibers, as desired by both Groten et al. and Hills. Further, Applicants cannot fathom a reason why the skilled artisan would be motivated to first coalesce the fibers according to Hills, only to separate them and re-coalesce them outside the spinning die.

Withdrawal of the rejection is requested on these bases.

The Examiner further opines that modifying Hills to place the filters 22 and 23 downstream of the coat hanger manifolds 29A and 30B (Hills, Figs. 3 and 4) would have been obvious "since placing the filter elsewhere in the apparatus is an obvious alternative to filtering at the beginning" (Office Action, page 3). Applicants traverse this suggestion for two reasons. Initially, the modification suggested by the Examiner would necessitate a filter for each and every slot 29A and 30B of the Hills apparatus, which would unnecessarily complicate the cleaning procedure of the Hills spinning die, in contrast to Hills' stated desire to avoid such problems with drilled passages (col. 4, lines 9-20), for example passages 27 and 28, which would no longer receive filtered polymer if the filters were to be moved downstream from them.

Additionally, Hills consistently indicates that pressure drop through the system is an important consideration (col. 6, lines 1-4; col. 11, lines 25-29; col. 12, lines 19-24). In particular, Hills states:

In all of the various versions of the spin pack assembly of my present invention, it is desirable that the pressure drop across any of the disposable distributor plates be small relative to the total pressure drop from the filter exit to the spinneret exit. This is so because etched plates can not have the

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accuracy of passage configuration provided by milling, drilling, reaming or broaching in the thicker prior art plate. (Col. 25, lines 3-10; emphasis added).

Accordingly, one of skill in the art would not be motivated to alter the position of any of the components of the Hills apparatus, since unwanted pressure drop variations might prove detrimental to the functioning of the Hills apparatus as a whole. Again, *In re Vaeck*, cited in Applicants' previous reply, demands that the skilled artisan have an expectation of success in making any modifications to the prior art. Applicants submit that Hills' expressed concerns as to pressure drop throughout his device would mitigate any expectation of success in modifying the Hills device. Withdrawal of the rejection is requested on this basis.

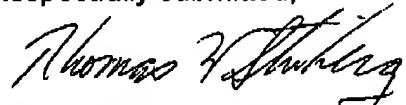
Finally, the claims as amended are directed to a melt blowing process and spinning beam, in contrast to the spinning die of Hills, which is designed for both melt spinning and solution spinning (col. 5, lines 46-50). The Examiner's attention is directed to Figs. 3 and 4 of Hills, wherein it is illustrated that the spinneret orifices 40 are arranged in a rectangular, two-dimensional array. Such a rectangular distribution of spinneret orifices cannot be modified to accomplish melt blowing of polymers, since a melt blowing beam requires that fluid jets are positioned adjacent the exit orifices, as claimed herein. Thus, if modified according to the Examiner's suggestion, by modifying the spinning die of Hills to incorporate the fluid jets of Buehning, at best only fibers exiting at the edges of the modified Hills dies could be melt blown successfully, since the fluid jets would not be 'adjacent' each set of spinneret orifices. Further, it is even unlikely that the fibers exiting the edges of the modified Hills spinneret could be successfully melt blown, since as Buehning illustrates, a fluid jet is required on both sides of each exiting filament. Withdrawal of the rejection is requested on this basis.

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Withdrawal of the rejection for failure to present a *prima facie* case of obviousness is requested.

Respectfully submitted,



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Date: 4/10/03

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